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Abstract of the Disclosure

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3 A method of diffusion welding of different metals is accomplished while applying
4 pressure to the butt area and homogeneous heating the butt area to about 0.8 to about 0.9
5 the melting point of the metals to be welded. Additional heat pulses are then supplied to
6 the butt area. The number of additional heat pulses depends on the diameter of the pieces
7 to be welded. The heat pulses provide for a more even temperature distribution over the
8 butt area and increases the number of active diffusion centers to enhance the diffusion
9 process. The method is useful for different refractory and stainless steels and alloys. The
10 resultant diffusion welds do not produce burring.

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